

**REMARKS**

Claims 1-13 are pending in this application. Claims 1-5 and 9 have been amended to overcome the Examiner's rejections. Claim 14 has been added to further recite applicants' invention. It is respectfully submitted that these amendments are supported by the application as filed (including specification, claims abstract of the invention and drawings) and that no new matter has been added. The Examiner's rejections are further addressed below.

***Rejections under 35 U.S.C. §102(b)***

The Examiner rejected claims 1, 2, 7, 9-11 and 13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,096,586 to Kaner et al. It is respectfully submitted that the Kaner et al. do not teach or fairly suggest the claimed invention.

Specifically, Kaner et al. is directed to the problem of forming membranes "having selective permeabilities." (ABSTRACT, p. 1.) To this end, Kaner et al. teach the use of selective doping to increase separation between polymers in a membrane to form pores in the membrane that are permeable to gases. (SUMMARY OF THE INVENTION, col. 3-4.) The specific citation relied upon by the Examiner at col. 6, lines 35-38, is discussing this. It frankly has nothing to do with the suppressing the formation of PNB and LEP through the use of an

anopore membrane. In fact, the specific example provided by Kaner et al. teaches that the solution of emaraldine base and NMP "was processed into thin films by pouring the solution into glass Petri dishes and cur[ed] at 125° C. for 3 hours." (Col. 11, lines 14-17.) As explained in detail by applicants' specification, these types of processes permit phase segregation into PNB and LEB and so teach away from the claimed invention. (See attached Declaration of Nicholas J. Pinto at ¶3.)

Claim 1, as amended, expressly recites that "the formation of PNB and LEB are suppressed by the anopore membrane." Claim 9, as amended, expressly recites that "the at least one pore suppresses phase separation into PNB and LEB." Claims 2, 7, 10, 11 and 13 depend from these claims. Accordingly, it is respectfully submitted that the rejection based upon Kaner et al. is overcome.

The Examiner also rejected claims 1, 7 and 9 based upon an article in Synthetic Metals titled "Nanocomposites glass / conductive polymers," by Zarbin et al. As this article properly explains:

The design and understanding of well-defined conducting structures of nanometer dimensions is one of the most challenging goals of contemporary solid-state science, and developments along this line could ultimately reduce the size of electronic circuitry to molecular dimensions. (P. 227, col. 2.)

To form nanowires, Zarbin *et al.* teach the use of "Porous Vyco Glass (PVG)." (P. 228, col. 1.) A monomer is introduced into the pores of the PVG, and a polymer is grown from this monomer. In other words, the polymer is grown *in situ*. (P. 227, col. 2; p. 231, col. 1-2; see also Declaration of Nicholas J. Pinto at ¶5.)

Against this teaching, applicants discovered that an anopore membrane could suppress phase separation in a polymer dissolved in a solution (and not grown *in situ*). For PANiEB the suppression of phase separation into PNB and LEB is achieved by charge pinning arising from interactions of the PANiEB and the walls of the anopore membrane. The citations relied upon by the Examiner do not in any way teach or fairly suggest this interaction. In fact, this same interaction simply would not occur with an insulating glass membrane.

As quoted above, the express elements of claims 1, 7 and 9, as amended, are neither taught nor suggested by Zarbin *et al.*

***Rejections under 35 U.S.C. §103***

The Examiner rejected claims 2, 5, 6, 8 and 10 under 35 U.S.C. §103 as being obvious over Zarbin *et al.* in further view of Kaner *et al.* It is respectfully submitted that this combination does not teach or fairly suggest the claimed invention. Specifically, neither of these references teach or

fairly suggest the use of an anopore membrane as recited by the claims and neither of these references teach or fairly suggest that 20nm pores in such anopore membrane would suppress phase separation into PNB and LEB by charge pinning arising from interactions of the PANiEB and the walls of the anopore membrane.

The Examiner also rejected claims 3, 4 and 12 as obvious. Because these claims depend from an allowable claim and because these claims also incorporate the anopore membrane, it is respectfully submitted that they stand in condition for allowance.

The Examiner also argued that the prior art teaches that "Nucleopore and Anapore (alumina-containing) membrane discs are interchangeable" and that it would be obvious to substitute one for the other to achieve "stable, consistent drug-releasing rates." First, the invention has nothing to do with "drug-releasing rates" as the solution is captured in, not released through, the pores. And, contrary to this prior art teaching that these two membranes are interchangeable, applicants' invention demonstrates that the Anapore membranes suppress phase separation into PNB and LEB by charge pinning arising from interactions of the PANiEB and the walls of the anopore membrane.

**Conclusion**

For the forgoing reasons, it is respectfully submitted that the prior art neither teaches nor suggests the express elements of the claims. The Examiner's further consideration and favorable action are respectfully requested.

Respectfully Submitted,

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